



Great Smoky Mountains National Park
www.nps.gov/grsm

Stewardship, Environmental Leadership

The following centennial proposal is certified as eligible for Centennial Challenge funding consideration in fiscal year 2008. Funding for the Centennial Challenge requires legislation.

Determine Impacts of Storm Events on Aquatic Ecosystems

Location: Tennessee-North Carolina

Partner(s): Friends of the Smokies

Partner Website: www.friendsofthesmokies.org

Total Cost: \$660,000

Proposal # 137476

Summary: Long-term monitoring of park streams over the last 10 years has suggested that water quality may be highly dependent on storm events and that large die-offs of fish may be occurring during these events. These episodic events may be more important than previously thought in determining critical loading from air quality and play a major role in the park's ability to model air to water interactions. Conducting a study of the impacts episodic storm events have on stream water quality will allow the park to utilize better quality modeling data in responding to regulatory processes such as pending air pollution permitting actions. Both air and water quality impact fish and wildlife resources; therefore, brook trout have been selected as an indicator of effect. The objective will be to identify factors responsible for the loss of brook trout range in headwater streams during storm events.

For more information contact:

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Resource Management staff electroshock a stream to study brook trout.